



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/779,994

02/17/2004

Lawrence A. Schwartz

3582 P 003

8889

7590 02/25/2008  
McDermott Will & Emery LLP  
227 Wes Monroe Street  
Chicago, IL 60606-5096

EXAMINER
----------

JONES, HUGH M

ART UNIT	PAPER NUMBER
----------	--------------

2128

MAIL DATE	DELIVERY MODE
-----------	---------------

02/25/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/779,994	<b>Applicant(s)</b> SCHWARTZ, LAWRENCE A.	
	<b>Examiner</b> Hugh Jones	<b>Art Unit</b> 2128	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 November 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-9 and 11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-9 and 11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### Introduction

1. Claims 1-2, 4-9, 11 of U.S. Application 11/352,249 filed 2/13/2006 are pending.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 4 recites the limitation "*the* inspection form" in the first limitation. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 1-2, 4-9, 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Skidmore et al., US PreGrant Pub 2003/0040934, in view of Gravesen et al., "Microfungal Contamination of Damp Buildings- Examples of Risk Constructions and Risk Materials," Environmental Health Perspectives Volume 107, Supplement 3, June 19, as applied to claims 1-2 and 4-5 above, and further in view of NAHB Research Center, "Mold in Residential Buildings," Toolbase Technotes July 24, 2001.

7. Skidmore discloses a system for assessing a building's propensity to mold growth (paragraph 19 lines 3-5), the system comprising:

- A base module (figure 1 server 26); • A remote module being communicably connected to the base module (figure 1 inspector terminal 12 and PDA 14); • An inspection form accessible to the base and remote modules (paragraph 17 lines 25-29, paragraph 18 lines 1-2), the inspection form including a plurality of building characteristics utilized during inspection of the building (paragraph 20 lines 11-20); and,
- A calculator being operably connected to the base module and capable of utilizing the inspection form (paragraph 23 last 3 lines).

Skidmore does not disclose expressly the calculator determining a mold risk score. Gravesen discloses assessing a building's propensity to mold growth by determining a mold risk score (page 1 last paragraph, score system using an index describing the different conditions for collected materials in a building). It would have been obvious to one of ordinary skill in the art of building assessment, at the time of the present invention to modify Skidmore's home warranty system with Gravesen's teachings of providing a mold risk score in order to calculate a home warranty based on its risk for mold infestation. The motivation for doing so would have been to allow

customization by tailoring the home inspection system for specifically mold inspection (Skidmore paragraph 5 last 3 lines, paragraph 19).

- an action item list providing suggestive solutions to reduce the mold risk score, the action item list being generated in response to the calculated mold risk score exceeding a predetermined level.:

Skidmore discloses an action item list providing suggestive solutions being generated from the inspection form (paragraph 18, for example, allowing a homeowner to repair damaged items in order to provide tailored warranty coverage).

Neither Skidmore nor Gravesen disclose expressly the action item list including solutions to reduce the mold risk score. NAHB discloses a list of suggestive solutions to reduce the mold risk score (bulleted list page 3).

It would have been obvious to one of ordinary skill in the art of building assessment, at the time of the present invention, to modify Skidmore's suggestive solutions in an action item list to include NAHB's suggestive solutions to reduce the mold growth risk. It would have further been obvious to generate the action item list in response to Gravesen's the calculated mold risk score exceeding a predetermined level. The motivation for doing so would have been to alleviate concern about mold in buildings (NAHB page 1).

As per claim 2,

Skidmore discloses the building characteristic being selected from the group consisting of interior (page 4 column 1 lines 25-28), exterior (page 3 paragraph 20 line

Art Unit: 2128

20-page 4 column 1 line 1), roofing (page 4 column 1 lines 1-3), building envelope (page 3 paragraph 20 line 20- page 4 column 1 line 1), attic (page 4 column 1 lines 3-9), foundation drainage (page 4 column 1 lines 8-12), plumbing (page 4 column 1 lines 23-25), foundation type (page 4 column 1 lines 8-12), and HVAC system (page 4 column 1 lines 19-23).

As per claim 4,

Skidmore discloses a method for assessing a building's propensity to foster mold growth, the method comprising the steps of:

- Providing *the* inspection form (paragraph 17 lines 8-17);
- Receiving a completed inspection form (paragraph 18 lines 1-2); and
- Calculating a score in response to the completed inspection form (paragraph 23 last 3 lines). Gravesen discloses the score being a mold risk score (page 1 last paragraph, score system using an index describing the different conditions for collected materials in a building).

As per claim 5,

Gravesen discloses performing a mold growth propensity assessment in response to the calculated mold risk score (page 2, Results paragraph 2 beginning "The susceptibility to fungal infestation... ").

As per claim 6,

As per providing a list of suggested steps to reduce the mold risk score in response to the calculated mold risk score exceeding a predetermined threshold level, Skidmore discloses an action item list providing suggestive solutions being generated from the inspection form (paragraph 18, for example, allowing a homeowner to repair damaged items in order to provide tailored warranty coverage).

Neither Skidmore nor Gravesen disclose expressly the action item list including solutions to reduce the mold risk score. NAHB discloses a list of suggestive solutions to reduce the mold risk score (bulleted list page 3).

It would have been obvious to one of ordinary skill in the art of building assessment, at the time of the present invention, to modify Skidmore's suggestive solutions in an action item list to include NAHB's suggestive solutions to reduce the mold growth risk. It would have further been obvious to generate the action item list in response to Gravesen's the calculated mold risk score exceeding a predetermined level. The motivation for doing so would have been to alleviate concern about mold in buildings (NAHB page 1).

As per claim 7,

Skidmore discloses a method for evaluating mold growth probability within a structure comprising the steps of:

- Providing questions over a network regarding the structure and building materials used therein (paragraph 17 lines 8-17);

- Receiving answers over the network to the questions (paragraph 18 lines 1-2);

and

- Performing a calculation in response to the answers (paragraph 23 last 3 lines).

Skidmore does not disclose expressly the calculation being a mold risk score. Gravesen discloses assessing a building's propensity to mold growth by determining a mold risk score (page 1 last paragraph, score system using an index describing the different conditions for collected materials in a building), It would have been obvious to one of ordinary skill in the art of building assessment, at the time of the present invention to modify Skidmore's home warranty system with Gravesen's teachings of providing a mold risk score in order to calculate a home warranty based on its risk for mold infestation. The motivation for doing so would have been to allow customization by tailoring the home inspection system for specifically mold inspection (Skidmore paragraph 5 last 3 lines, paragraph 19).

Neither Skidmore nor Gravesen disclose expressly the action item list including solutions to reduce the mold risk score. NAHB discloses a list of suggestive solutions to reduce the mold risk score (bulleted list page 3).

It would have been obvious to one of ordinary skill in the art of building assessment, at the time of the present invention, to modify Skidmore's suggestive solutions in an action item list to include NAHB's suggestive solutions to reduce the mold growth risk. It would have further been obvious to generate the action item list in response to Gravesen's the calculated mold risk score exceeding a predetermined level.



Art Unit: 2128

The motivation for doing so would have been to alleviate concern about mold in buildings (NAHB page 1).

As per claim 8,

Skidmore discloses providing the calculation over the network (paragraph 23 last 3 lines). Modified with Gravesen as in claim 7 above, it would have been obvious to provide the mold risk score over the network.

As per claim 9,

Gravesen discloses performing a mold growth propensity assessment in response to the calculated mold risk score (page 2, Results paragraph 2 beginning "The susceptibility of fungal infestation...").

As per claim 11,

Skidmore discloses receiving results of a thermal image of the structure and including the results of the thermal image as a variable in performing the calculation (paragraph 20 last 6 lines). Modified with Gravesen as in claim 7 above, it would have been obvious for the calculation to be the mold risk score.

### ***Response to Arguments***

8. Applicant's arguments filed 11/29/2007 have been fully considered but they are not persuasive.

Art Unit: 2128

## 9. Applicants argue:

Certainly, this rationale is applicable in the present case. Skidmore et al. teaches a computerized home inspection system and method, which includes collecting information from a physical home inspection leading to the creation of a customized home warranty insurance policy. The Gravesen article is a pilot study conducted for the purposes of identifying water damaged constructions and building materials critical for mold contamination. Gravesen does not determine if a material will develop mold, but to what extent the mold will develop, as its development is a given under the conditions. Neither reference discloses assessing a building's propensity for mold growth by determining a mold risk score. Therefore, it does not follow to combine the Gravesen article, a study on mold on water damaged materials, with the computerized home inspection/warranty system of Skidmore et al. to arrive at Applicant's invention, which is a system for assessing a building's propensity to foster mold growth and calculating a mold risk score.

Gravensen, in one example, discloses whether a mold will develop in the first place and the contributing co-factors (bottom, page 3):

Studies from the most recent years have demonstrated that microfungi produce a substantial number of biologically very active substances other than allergens (10,18-21). A new paradigm for the significance of exposure to microfungi in the indoor climate has been developed since mycotoxins of the trichothecene type have been detected from airborne spores, dust, and infected buildings (20,22,23). Furthermore, it has been experimentally documented that the toxic effects of mycotoxin T-2 toxin were 10 to 20 times stronger by inhalation than by ingestion (24). As the buildings investigated in this study were specially selected and known to have problems, they do not provide sufficient data to recommend certain building materials to inhibit or avoid mold infestation in case of leakage and humidification for a prolonged period of time. Such recommendations will be presented as one of the outcomes of the Danish Mold Programme, 1998-2001.

In another example (abstract):

reasons for water damage with subsequent infestation of molds. From a score system assessing the bioavailability of the building materials, products most vulnerable to mold attacks were water damaged, aged organic materials containing cellulose, such as wooden materials, jute, wallpaper, and cardboard. The microfungi genera most frequently encountered were Penicillium (68%), Aspergillus (56%), Chaetomium (22%), Ulocladium, (21%), Stachybotrys (19%) and Cladosporium (15%). Penicillium chrysogenum, Aspergillus versicolor, and Stachybotrys chartarum were the most frequently occurring species. Under field conditions, several trichothecenes were detected in each of three commonly used building materials,

While the "list" may not be expressly disclosed, the contributing factors and therefore the remedies are known, namely reduction of the contributions.

## 10. Applicants argue:

Skidmore and Gravesen were discussed above. The addition of the NAHB reference does not overcome the deficiencies of the combination of Skidmore and Gravesen to render the present invention unpatentable. The NAHB article does not provide any form of assessment for calculating a mold risk score, yet the NAHB article is being cited for the premise that it "discloses a list of suggestive solutions to reduce the mold risk score." Applicant respectfully submits that while the NAHB article provides a list of strategies to help minimize mold growth, it **does not** specify solutions to reduce a mold risk score. The NAHB article does not include a calculation of a mold risk score, nor does it address Applicant's invention of determining a mold propensity factor for a particular building.

Page 2 of NAHB discloses:

Mold spores are airborne and travel into and out of buildings as air is exchanged and with the movement of people and their belongings. Mold grows on wet surfaces and, if left untreated, may eventually release spores into the air. Airborne mold spore concentrations can become unhealthful when large areas are wet for prolonged periods. Resolving excessive moisture conditions can prevent and minimize mold growth in the indoor environment.

In order to reproduce, molds release tiny spores just as plants produce seeds. The spores settle on surfaces and, when conditions are favorable, they begin to consume organic material in their immediate vicinity. Molds can grow on cloth, carpet, leather, wood, wallboard, household dust, and on anything that is made of organic material. Sustained mold growth requires moisture, organic material (a food source), and a suitable temperature generally in the range of 40° to 100°F. When one or more of these three conditions are unsatisfactory, the mold colony will become dormant. When favorable conditions are restored, the dormant colony will resume its metabolic activity.

"New" mold may start when, for example, there is inadequate air filtration and the environment is too damp – in other words, NAHB provides the suggested solutions, namely proper filtration and control of moisture.

11. It is noted that the same factors that minimize growth also prevent development of mold in the first place. Applicants are requested to explain why they do not believe this to be the case. If Applicants believe that certain factors initiate growth and that other

Art Unit: 2128

different factors promote growth, they are requested to provide evidence thereto. In this respect, see NAHB at page 8:

A: As part of routine building maintenance, buildings should be inspected for visible mold and evidence of water damage. The conditions causing mold (such as water leaks, condensation, infiltration, or flooding) should be corrected to prevent mold from growing.

12. Taking Applicant's position (which is not agreed to), for the sake of argument, it is noted the claims are drawn to correlating known factors which lead to the development of mold, and for which there was a need for solution in the prior art, as stated in the specification. Applicants have not invented correlation techniques nor the factors which foster the development of mold.

As noted in KSR,

"When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, §103 likely bars its patentability." KSR, 127 S. Ct. at 1740, 82 USPQ2d at 1396.

The specification discloses

20 Because the presence of mold can have a disastrous effect on a building's inhabitability and monetary value, the control and reduction of hazardous molds has become a high-level priority. To this end, there is a need for a reliable system or method to assess a building's propensity to foster mold growth.

In other words, there are admitted prior art teachings (although maybe not "reliable") for assessing a building's propensity to foster growth. As noted in KSR,

"When there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions, a person of ordinary skill has good reason to pursue the known options within his or her technical grasp." KSR, 127 S. Ct. at 1742, 82 USPQ2d at 1397.

### ***Conclusion***

**13. THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

14. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

**15. Any inquiry concerning this communication or earlier communications from the examiner should be:**

directed to: Hugh Jones telephone number (571) 272-3781,  
Monday-Thursday 0830 to 0700 ET,

**or**

the examiner's supervisor, Kamini Shah, telephone number (571) 272-2279.

Art Unit: 2128

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist, telephone number (703) 305-3900.

**mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**or faxed to:**

(703) 308-9051 (for formal communications intended for entry)

**or** (703) 308-1396 (for informal or draft communications, please label *PROPOSED* or *DRAFT*).

/Hugh Jones/

Primary Examiner, Art Unit 2128

February 16, 2008